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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,306	11/18/2005	Christian Kuhrs	13156-00014-US	5527

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EXAMINER
BALASUBRAMANIAN, VENKATARAMAN

ART UNIT	PAPER NUMBER
1624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/542,306	<b>Applicant(s)</b> KUHRS ET AL.	
	<b>Examiner</b> Venkataraman Balasubramanian	<b>Art Unit</b> 1624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/15/2005</u> <u>11/15/2005</u> | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

The preliminary amendment, which included amendment to claims 2-18 and addition of new claims 19 and 20, filed on 7/15/2005, is made of record. Claims 1-20 are now pending.

#### *Information Disclosure Statement*

References cited in the Information Disclosure Statement, filed on 7/15/2005, are made of record.

#### *Drawings*

Specification has no brief description of the Drawings under separate heading. Brief Description of the Drawing is needed.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Any claim dependent on a rejected claim is also rejected as it shares the same indefiniteness.

1. Recitation of "low Lewis acidity" and "higher Lewis acidity" in claim 1 renders claim 1 and its dependent claims 2-20 indefinite as it is not clear what is meant by low Lewis acidity and higher Lewis acidity. Specification has no definition of these terms and therefore it is not possible to discern the difference between the two catalysts. It is not clear what is intended. Specification on page 4, states:

The catalyst used in the main reactor preferably comprises at least one mineral from the group consisting of aluminum oxides, silicon oxides and aluminosilicates and mixtures of various aluminum oxides, silicon oxides and/or aluminosilicates. It particularly preferably comprises at least one mineral from the group consisting of bayerite, boehmite, gibbsite, montmorillonite, bentonite and muscovite, in particular bentonite. The catalyst can also consist entirely of the minerals mentioned.

The abovementioned minerals may have been activated in a manner known to those skilled in the art before use in order to achieve a desired acidity, for example by thermal treatment. Since a thermal treatment generally increases the acidity of the minerals mentioned, it is generally not carried out in the case of the catalysts used in the main reactor. The catalysts used in the main reactor preferably have a surface Lewis acidity of from 0.3 to 1.8  $\mu\text{mol/g}$ , more preferably from 0.5 to 1.5  $\mu\text{mol}$ , in particular from 0.8 to 1.2  $\mu\text{mol/g}$ .

However, for the after-reactor catalyst no such requirements are stated and the composition of the catalyst appears to be same as shown in below:

Like the catalysts used in the main reactor, the catalyst in the after-reactor preferably comprises at least one mineral from the group consisting of aluminum oxides, silicon oxides and aluminosilicates and mixtures of aluminum oxides, silicon oxides and/or aluminosilicates. The catalysts used in the after-reactor comprise from 0 to 60% by weight, preferably from 5 to 50% by weight, of  $\text{SiO}_2$  and from 100 to 40% by weight, preferably from 95 to 50% by weight, of A1203. Preference is given to using aluminosilicate catalysts.

Hence, the difference between the two catalysts in terms of their acidity is unclear.

***Allowable Subject Matter***

Claims 1-20 would be allowable, barring finding of any prior art in a subsequent search, if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

**Conclusion**

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM.

The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

*Venkataraman Balasubramanian*  
Venkataraman Balasubramanian

12/24/2005